Abstract

A system and method for providing multiple levels of fault protection in a data communication network. Fault protection criteria for each of a plurality of resources in the network is stored in each of a plurality of nodes of the network. The fault protection

5   criteria includes indicia of a type of fault protection available to the resource. Desired fault protection criteria is determined for a label-switched path between a node of the network that is a source for data and a node of the network that is a destination for the data. A candidate resource in the network for is selected for a communication path between the source and the destination. Whether the candidate resource provides at least

10   the desired level of fault protection is determined from the fault protection criteria. When the candidate resource provides at least the desired level of fault protection, the candidate resource is selected for the communication path. The invention provides an improved technique for managing available types of redundancy to provide a minimum specified amount of fault protection for various data flows without wasting resources, such as by

15   providing excessive redundancy.